tionate changes in the motion of the globules of blood; and it is almost certain, that the influence of some substances extends even to the contents of the minute and capillary vessels.

Dr. Hall presents in a separate chapter, "a brief account of the singular phenomenon of a caudal heart in the eel," and in another chapter some interesting remarks on the effects of warm water on muscular textures. But for the details on both these subjects we must refer to the volume itself.

In taking leave of the work before us, we must be permitted to express, once more, a favourable opinion of its merits. While doing this, however, we are not prepared to join Dr. Hall in all the conclusions he has deduced from his experiments and observations. But as we could not expatiate on all those points on which he appears to us to have erred or decided too hastily, without extending this article far beyond its intended limits, we have abstained entirely from obtruding our own remarks, and leave our readers to make their inferences from the views presented by Dr. Hall.

R. La R.

XIII. *Geschichtliche Darstellung des ausbruchs der Asiatischen Cholera in Hamburg. Nach Acten und Amtlich angestellten untersuchungen.* Von J. C. G. Fricke, Dr. Hamburg, 1831. 8vo. pp. 92.

A Historical Account of the Occurrence of the Asiatic Cholera in Hamburgh, &c. By J. C. G. Fricke, M. D.

The first case of cholera occurred in Hamburgh on the 5th of October, 1831. At this period no disease had appeared within a circumference of thirty German miles of the city, presenting any resemblance in its symptoms to the epidemic then prevailing in other parts of the north of Europe. The same increased tendency, however, to gastric and intestinal affections, which had been observed to precede the appearance of the cholera, wherever the latter had heretofore manifested itself, had been noticed for several months by the physicians of Hamburgh—by whom the progress of the epidemic was anxiously watched, and its phenomena, as it approached nearer and nearer to the city, studied with the utmost care.

As early as the month of May, so far as it regards quarantines and other restrictive measures, every precaution appears to have been taken to preserve the city from the visitation of the dreaded pestilence.

The first three cases of the disease occurred within the walls of Hamburgh, in a place called the deep cellar, situated in Nicolai street, about three hundred feet from the harbour. This cellar is described as a damp, filthy, unventilated place, many feet below the surface of the earth, into which the water of the river Elb flows whenever the latter rises above its ordinary level. The several apartments into which this cellar was divided, were occupied by forty-one individuals, of both sexes and of all ages—the whole of whom were of the most depraved and dissipated habits.

The first case was reported to the police board on the evening of the 5th of October, by Dr. Hauptfleisch. It occurred in a drunkard, of the name of Peterson, sixty-seven years of age. He had come home about 6 o'clock on the preceding evening, and after partaking of a considerable quantity of sour milk, drank a number of glasses of ardent spirits. Soon afterwards he was seized

with violent vomiting and purging—his extremities soon became icy cold, his feet and hands of a blue colour, his eyes sunken, and he was affected with cramps of the lower extremities. He died on the evening of the 6th.

The deceased had resided for four months in the cellar, and for the last twenty weeks he had not been out of the city, nor had he recently been in company with any foreign sailor, or indeed with any stranger. At the time of his death, there were five or six persons in the same apartment.

The second case of cholera occurred on the 7th of October, in a prostitute, of the name of Bechman, residing in the same cellar. She was attacked about 9 o'clock in the morning, and died at 11 in the evening. Two days before her death, she had been to dig potatoes in the country, about three-eighths of a mile from Hamburgh, and on her return had been completely drenched with rain. She was almost constantly in a state of intoxication.

Another case occurred on the 7th, in the same cellar; this was in a drunkard of the name of Summers; thirty-seven years of age—he was removed to the hospital, where he died on the 9th.

Several other cases occurred in the cellar referred to, before the 11th of October, when the remaining occupants were removed, together with eighty-five other individuals from similar habitations in other parts of the city, to a large hemp magazine, situated in the suburbs of Hamburgh, where they were carefully guarded, and supplied with provisions and other necessaries by the government.

By the most careful and minute investigation on the part of the police board, it was ascertained, that none of the individuals who were attacked by the disease in the cellar, where it first broke out, had been recently in any place where the cholera prevailed, or had had any intercourse with persons who had arrived within a short period from any foreign port.

Between the 7th and 8th of October, in addition to the cases which have already been noticed, a number occurred in various and distant parts of the city, in individuals who had had no intercourse with those previously attacked, nor with each other.

The whole number of deaths from cholera in Hamburgh, up to the 22d of the month, was only three hundred and eight. The number attacked is not given by Dr. Fricke, and of course he presents us with no data from which to judge of its comparative mortality in that city. The cases in which the disease proved fatal, were almost exclusively confined to the lower classes of the population, inhabiting deep, filthy, and damp cellars, or small, narrow, dark, and crowded courts and alleys, into which the rays of the sun seldom penetrate. Most of them were persons of dissipated or very irregular habits. Of the deaths, two hundred and seventeen occurred in men, seventy-eight in women, and thirteen in children. The ages of whom are shown by the following table.

Under 10 years,	13
Between 10 and 20	13
" 20 30	49
" 30 40	73
" 40 50	65
" 50 60	50
Above 50 years of age,	45
	308

In regard to the important question, in what manner was the cholera produced in the city of Hamburgh, Dr. Fricke conceives, that the simple relation of facts, which he has given us in the present work, shows fully, that the disease could not have been introduced from without, nor depended for its origin in any degree upon contagion. Independent of the circumstance of the first cases of the disease in Hamburgh, occurring in individuals who had had no intercourse with any person coming from a port in which the disease prevailed, the following facts confirm the correctness of the author's conclusions.

It is certified by the proper authorities, that up to the 17th of October, no case of cholera occurred in the upper harbour—and only one in the lower harbour. This case occurred in a sailor on board a vessel just arrived from Bahia. He was attacked in the night, between the 8th and 9th of October, and was immediately removed to the hospital, where he died. With the exception of the captain, no one of the crew of this vessel, including the deceased, had any communication with the shore, or with any inhabitant of the city previously to the 10th of October.

In the hemp magazine, to which the persons removed from the deep cellar in which the cholera first occurred, and from other unwholesome localities were removed, there were collected on the 12th of November, two hundred and thirteen individuals, of the lowest classes of the city, the great majority of whom were habitual drunkards. Among these persons, only twenty-seven individuals in all were attacked with the disease; the first case occurring on the 27th of October, the last on the 1st of November.

Among the four hundred nightly watch, who were obliged, almost constantly, to come in contact with individuals labouring under cholera, no one case of the disease occurred.

None of the physicians of Hamburgh were attacked, nor any of the attendants in the hospital.

On the 19th of October, one of the prisoners in the house of detention was attacked, he had been under arrest since the 7th of the month, during which time he had had no intercourse with any persons from without.

In the immediate neighbourhood of Hamburgh, notwithstanding the communication with the city was interrupted, no case of cholera occurred previously to the 23d of October, when it made its appearance in Moorburg. In Bergedorf, one case occurred on the 28th of October, and on the same day the epidemic broke out in Lüneburg—but neither in Harburg or Geesthacht did a single case occur up to the 6th of November.

The work of Dr. Fricke contains much useful information. The account of the weather preceding the appearance of the cholera, the meteorological observations made during the first fifteen days of October—and the table of births and deaths for ten years from 1820 to 1830 inclusive, present many highly important facts, which cannot well be compressed within the limits of a bibliograph.